

OPINION UNDER SECTION 74A

Patent	GB2499285 B
Proprietor(s)	David John Utting
Exclusive Licensee	David Utting Engineering Limited
Requester	Potter Clarkson LLP on behalf of Firber Engineering
Observer(s)	IP 21 Limited on behalf of David John Utting
Date Opinion issued	17 March 2020

The request

1. The comptroller has been requested by Potter Clarkson LLP on behalf of Firber Engineering (“the Requester”) to issue a validity opinion in respect of GB2499285 B (“the Patent”) in the name of David John Utting. The request further seeks an opinion on whether the Patent is infringed by a product produced by Firber Engineering.
2. The Patent entitled “Transportable vehicle enclosures” was granted on 19 March 2014 and is still in force. The Patent claims priority from Patent Application No. GB 1213234.6 with a filing date of 25 July 2012.
3. The request was received on 18 December 2019 and was accompanied by a statement explaining the request along with copies of a number of prior art documents, engineering drawings of the potentially infringing product and the Patent itself.

The documents

4. Due to the length of the request and the amount of document referred to I have divided the supplied documents into groups:

Patent documents considered to dispute the novelty of the patent

- A. DE4327751 A1
- B. DE202009003182 U1
- C. GB2136947 A

D. US4685385 A

Patent documents considered to show common general knowledge and therefore dispute the inventiveness of the patent

E. EP1874095 A2

F. US5853215 A

Web citations considered to show common general knowledge and therefore dispute the inventiveness of the patent

G. www.archive.com webpage excerpt dated 30 November 2010 from www.sprayboothsupplies.com

H. www.archive.com webpage excerpt dated 25 March from 2011 www.truflowspraybooths.com

I. www.archive.com webpage excerpt dated 12 March 2012 from www.daviddutting.co.uk/xpbooths.htm

J. <https://www.youtube.com/watch?v=cYU3jzj2Nfw> dated 23 July 2012

Additional web citations included with the Observations in Reply

K. <https://globalfinishing.com/2012/04/20/paint-booth-temperature-settings-a-practical-guide/>

L. <https://www.paintandpanel.com.au/products/sikkens-autoclear-aerodry>

Infringement documents

M. engineering drawings of the alleged infringing product.

Observations and observations in reply

5. Observations were received on 17 January 2020 from IP 21 Limited on behalf of David John Utting (“the Observer”). The observations included arguments disputing the Requesters position on the validity and infringement of the patent.
6. Observations in reply were received from the Requester on 31 January 2020.
7. Observations were also received from IP 21 Limited on behalf of the Exclusive Licensee David Utting Engineering Limited on 31 January 2020.
8. A letter was received from the Requester on 4 February 2020 questioning the admissibility of the second set of observations.

Preliminary Matters

Whether the observations from the Exclusive Licensee can be accepted

9. On 31 January 2020 observations were sent by IP21 on behalf of the Exclusive Licensee David Utting Engineering Limited. In the covering email these observations were stated to be in response to paragraph 3 of the official letter dated 20 January 2020 to Mr David John Utting which states “Once the deadline for filing observations has expired, the requester and any exclusive licensee will have two weeks to file observations in reply.”.
10. In their letter of 4 February 2020, the Requester has disputed the filing of these observations as being contrary to the procedure laid out in section 4.2 of the Opinions Manual and being in bad faith.
11. The guidelines for the submission of Observations and Observations in Reply are set out by Rule 96 of the Patents Rules 2007 (as amended)¹ and within Section 4 of the Opinions Manual².
12. Section 4.1 states:

4.1 Who can respond and when?

1. Anyone can submit written observations for four weeks after the advertisement of the request appears on the website. This includes parties who have been notified directly.

2. Once the four week period is over, the requester then has two weeks to respond to all the observations with observations-in-reply. If someone other than the patent holder has filed observations, the patent holder can also respond to those observations, within the same two week period. There are no further opportunities for anyone to make any further observations see opinion 28/09.

13. Section 4.2 states, my emphasis added:

*If the patent holder (i.e. the patent proprietor and any exclusive licensee) wishes to file observations, he must do so at this stage and copy the observations to the requester. Anyone else who files observations must copy them to the requester and the patent holder. If observations have been filed then the requester has two weeks in which it can if it chooses file observations in reply. **These must strictly be in reply to issues raised in the observations** so again if new issues are raised, a further opinion would need to be requested if they are to be considered. (see review decision BL O/053/08. There are no further opportunities for anyone to make any further observations (see opinion 28/09, paragraphs (4) to (9)).*

¹ <https://www.gov.uk/government/publications/the-patents-rules-2007-and-patents-fees-rules-2007>

² <https://www.gov.uk/government/publications/opinions-manual>

14. It follows that there was an opportunity for the Exclusive Licensee to file general observations within the 4-week period following the request for the Opinion.
15. In line with section 4.2, the Exclusive Licensee then had an opportunity to file **observations in reply** to any observations that had been received. This second opportunity was in the 2-week period following the end of the 4-week period.
16. The observations referred to under paragraph 3 of the official letter fall within this remit and are restricted to observations **strictly in reply**.
17. Having read the observations filed by the Exclusive Licensee it is clear that they are not observations strictly in reply to the observations filed by the Patent Proprietor. The observations from the Exclusive Licensee were filed after the observations in reply from the Requester and have clearly taken these into account.
18. It would appear that the filing of said observations is an attempt by the Exclusive Licensee to circumvent the established procedure in order to provide commentary on the observations in reply and I will therefore not take them into account.

Relationship of this Opinion to Opinion 19/19

19. Opinion 19/19, which was requested by the Observer, has already been issued on the validity of the Patent. In Opinion 19/19 the Opinion Examiner concluded that independent claim 1 of the patent was novel and involved an inventive step based on the evidence before her. Documents C, D and F were submitted as part of this earlier opinion request; however, the remaining documents were not.
20. The sections of this opinion relating solely to document C, D and F of this opinion are therefore a mere repetition of that included in Opinion 19/19.
21. The relationship between these documents and the newly listed prior art will however be considered afresh.

Whether some of prior art documents should be considered

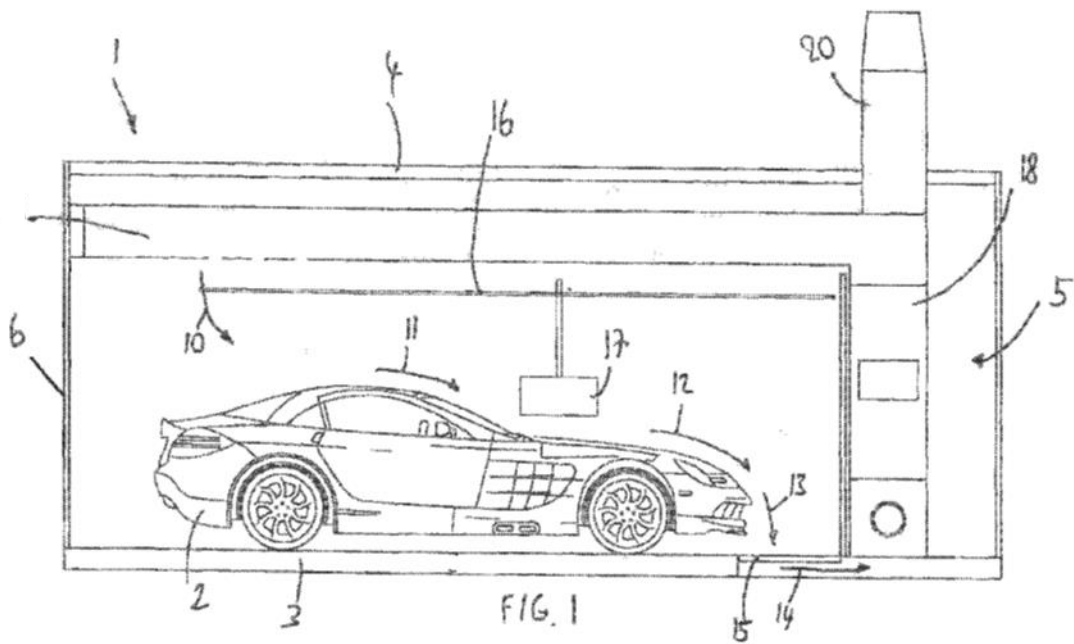
22. There appears to be some confusion as to whether GB2136947 was considered during the original examination of the Patent and consequently should not be considered now. GB2136947 was cited against equivalent application WO 2014/016606 and should have been considered by the examiner in the course of updating the original search. It would not, however, have been clear to the applicant that this was the case and as such they would have had no opportunity to comment on the relevance of this document. I am therefore happy for this document to now be included. Notwithstanding this, it should be noted that US4685385 which is by the same applicant repeats in its entirety the contents of GB2136947.
23. The Requester references US 5853215 in their discussion of the inventiveness of the claim set. Although this document is listed as prior art in the Patent and was considered by the examiner in the original examination process it has not been assessed in the light of the potentially new prior art documents. As such, if necessary assessment of this document in the light of DE4327751, DE202009003182, GB2136947 and US 4685385 is also considered to be acceptable.

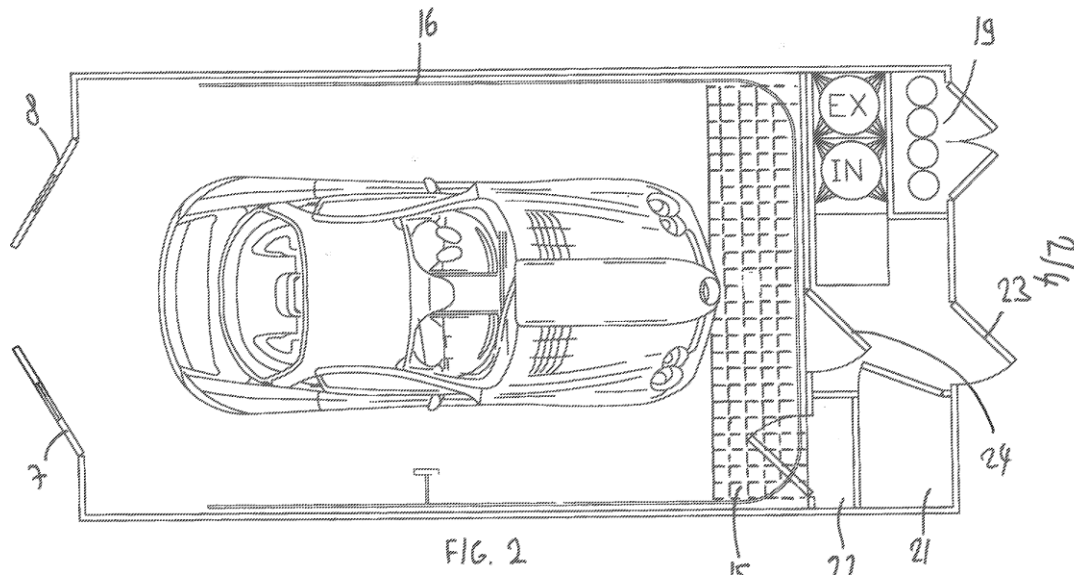
Additional comments

24. It is also noted that both the Requester and Observer have made comments with respect to the proceedings of equivalent applications in other jurisdictions. These proceedings are irrelevant to the matter in hand and will be given no consideration.

The Patent

25. The Patent relates to a transportable vehicular workshop for conducting automobile spray painting and curing operations. In the discussion of the prior art it is stated that known transportable workshops are unsuitable for conducting automobile paint spraying and curing operations in a stand-alone facility. The benefits of the invention are acknowledged to include the ability to more easily move the enclosure from one location to another, not having to take a vehicle to specific location for bodywork repair and the integral air handling unit making the unit suitable for both the spraying and curing aspects of the spray-painting process. The embodied invention is shown in the figures, figures 1 and 2 being reproduced below for reference.





26. A transportable vehicle enclosure 1 having a floor 3, a ceiling 4 and a rear portion 5 is shown. The front portion 6 incorporates doors 7, 8 and an air handling unit is provided in the rear portion 5. Air passes through inlet plenum 9 (unlabelled on figure 1 but considered to be implicitly disclosed as it is the only missing reference numeral) before reaching the vehicle containing part of the enclosure and exits via lower extraction duct 15. The air flows substantially diagonally across the length of the inside of the enclosure as shown by arrows 10-14. The air handling unit incorporates a direct gas fired burner with input and extraction fans (EX, IN, figure 2) and is capable of heating the air provided to the enclosure. In a preferred embodiment, the air handling unit raises the temperature of the incoming air to 22°C for spraying and 60°C for baking. The rear portion may also house a paint store 21 and an equipment store 22.
27. There are 17 claims in the granted patent, claim 1 being the only independent claim. As issues relating to the entire claim set are covered by this Opinion I have reproduced them in their entirety below:

1. A transportable vehicle enclosure for painting vehicles; said enclosure being formed as a mono-block suitable for loading onto a transporter and unloading from a transporter comprising side, front, rear, ceiling and floor portions, one of said portions being configured to allow vehicular access; whereby, in use, a vehicle may be placed within said enclosure; said enclosure further comprising an air handling unit integral with said mono-block for respectively producing a first temperature level within said enclosure suitable for a spraying mode of operation and a second temperature level within said enclosure suitable for a baking mode of operation.

2. An enclosure according to claim 1, wherein said air handling unit incorporates an upper air duct for outputting air into the enclosure at either said first or second temperature level; and a lower extraction duct located

towards a rear portion of the enclosure's floor; whereby air flows substantially diagonally between said upper air duct and said lower extraction duct.

3. An enclosure according to claim 2, wherein said rear portion incorporates said air handling unit and said lower extraction duct is located adjacent to said air handling unit in said floor.

4. An enclosure according to any of the preceding claims, wherein said air handling unit incorporates a heater; said heater being a direct fired gas burner which is capable of heating air in both said spraying mode of operation and said baking mode of operation.

5. An enclosure according to any of the preceding claims, wherein said air handling unit incorporates a heater; a fresh air inlet; and an airflow controller which in a first position allows fresh air to flow to said heater and which in a second position allows air to flow from inside said enclosure to said heater in order to re-circulate said air.

6. An enclosure according to claim 5, wherein said airflow controller is configured to automatically change from said first to said second position after a predetermined period of time elapses during which no spraying occurs.

7. An enclosure according to claim 6, further comprises a spray gun with a compressed air line; an air flow sensor being provided to sense the flow of air in said compressed air line; said controller changes from said first position to said second position dependent upon the detected presence or absence of air flow.

8. An enclosure according to any of the preceding claims, which is rectangular in plan view and the rear side of said rectangular enclosure contains said air handling plant.

9. An enclosure according to claim 8, wherein less than 3/4 of said rear side surface is occupied by said air handling plant.

10. An enclosure according to any of claims 2 to 9, wherein said floor is formed of longitudinal and sideways extending struts; said floor extraction duct being formed between sideways extending struts.

11. An enclosure according to any of claims 2 to 10, wherein said floor extraction duct incorporates a beam which forms a zigzag pattern; whereby passage ways are provided for extracted air.

12. An enclosure according to any of claims 2 to 11, wherein said floor extraction duct incorporates an extraction filter.

13. An enclosure according to any of the preceding claims, wherein air emitted from enclosure passes through a two or more stage filter.

14. An enclosure according to any preceding claim which is formed as a single integral block for transportation.

15. An enclosure according to any of the preceding claims, further comprising a dryer unit within the enclosure.

16. An enclosure according to claim 14, wherein said dryer unit is displaceable at least longitudinally within the enclosure and rotatably at least about an axis normal to the enclosure's floor.

17. A transportable vehicle enclosure for painting vehicles substantially as hereinbefore described and/or illustrated in any appropriate combination of the accompanying text and/or figures.

28. I will consider the novelty and inventiveness of the dependant claims should that become necessary after my assessment of claim 1.

Claim construction

29. Before considering the novelty, inventive step and infringement issues raised in the request, I need to construe the claims of the patent – that is to say, I must interpret them in the light of the description and drawings as instructed by Section 125(1) :

125(1) For the purposes of this Act an invention for a patent for which an application has been made or for which a patent has been granted shall, unless the context otherwise requires, be taken to be that specified in a claim of the specification of the application or patent, as the case may be, as interpreted by the description and any drawings contained in that specification, and the extent of the protection conferred by a patent or application for a patent shall be determined accordingly.

30. In doing so, I must interpret the claims in context through the eyes of the person skilled in the art. Ultimately, the question is what the person skilled in the art would have understood the patentee to be using the language of the claims to mean. This approach has been confirmed in the recent decisions of the High Court in *Generics UK Ltd (t/a Mylan) v Yeda Research and Dev. Co. Ltd & Anor* [2017] EWHC 2629 (Pat) and the Court of Appeal in *Actavis Group & Ors v ICOS Corp & Eli Lilly & Co.* [2017] EWCA Civ 1671.
31. The question of how the claims should be construed has resulted in a degree of discord between the Requester and the Observer. The Requester has provided a lengthy discussion of each of the 17 claims of the application in which they have broken down each claim into individual features.
32. In their observations, the Observer, has pointed out, rightly in my opinion, that such segmentation of the claims and over legalistic interpretation is not what section 125 suggests.
33. In *Glaverbel S A v British Coal Corporation*, Mummery J. in the Patents Court ([1994]

R.P.C. 443) stated (my emphasis added):

*“(5) The specification should be given a "purposive construction rather than a purely literal one": see *Catnic Components Ltd. v. Hill & Smith Ltd.*, [1982] R.P.C. 183 at 243. The court asks what are the matters disclosed in the specification which the technician skilled in the art would, with relevant knowledge and experience, understand to be the essential and novel features of the process covered by the patent. **Although the language of the specification must be examined with care to discern the relevant purpose, the court must be wary of the danger of losing the true meaning in a word by word or line by line textual dissection of the language of the claims.**”*

34. This was later confirmed by the Court of Appeal in *Glaverbel S A v British Coal Corporation* ([1995] R.P.C. 255). The claims should therefore be viewed through the eyes of the person skilled in the art and to impart an overly legalistic interpretation is not correct.
35. The first step in construing the claims is identifying the person skilled in the art. The Observer, in their observations, has provided a definition of this person that I am happy to accept, this being “A designer or engineer of transportable vehicle enclosures which may be suitable for painting vehicles.”
36. Claim 1 is generally clear although there are a few terms worthy of consideration, these being:

A transportable vehicle enclosure for painting vehicles

37. As highlighted by the Requester, how this term is construed is complicated by the inclusion of the definition of the word vehicle at page 2 lines 20-21 of the description:

“The term vehicle (and the related adjective vehicular) is to be interpreted broadly and may include within its scope at least the following: automotive vehicles, vessels, sledges, cycles, planes, toys and parts and fittings of such devices.”

38. However, to quote once more from *Glaverbel S A v British Coal Corporation* ([1994] R.P.C. 443) (my emphasis added):

*“(3) In reading the specification as a whole the different functions of the claim and the rest of the specification should be observed. The claim, cast in precise language, marks out the legal limits of the monopoly granted by the patent: and "what is not claimed is disclaimed". The specification describes how to carry out the process claimed and the best method known to the patentee of doing that. **Although the claims are construed in the context of the specification as a whole, it is not permissible to restrict, expand or amend the clear language of a claim by reference to a limitation or gloss in the language used in the earlier part of the specification, but not repeated in the claim itself.** It is legitimate, however, to refer to the rest of the specification to explain the background to the claims, to ascertain the meaning of the technical terms and resolve ambiguities in the construction of*

the claims.”

39. It follows that one should not allow a single statement within the description to obscure what would be considered an easily construable term. With the exception of this lone portion of text, the description and figures are concerned with spray painting motor vehicles. It would therefore be unwise to construe this term in claim 1 as meaning anything more than a transportable enclosure suitable for painting automobiles and parts thereof therein.

...said enclosure being formed as a mono-block suitable for loading onto a transporter and unloading from a transporter....said enclosure further comprising an air handling unit integral with said mono-block....

40. I think it is worthwhile considering these terms together rather than in isolation due to the impact that they have on one another. As the Requester rightly points out, other than in the statement of invention, the term mono-block is only used once within the description c.f page 8 lines 12-13.

“The enclosure may advantageously be built as a single mono block unit which may be easily transported, re-loaded and unloaded in a different location.”

41. Page 2 lines 12-13 which follow the statement of invention state that this configuration i.e. that of claim 1, is particularly advantageous as it allows both spray painting and curing operations to be tackled in a stand-alone facility.
42. However, we do not have to solely rely on the descriptive text. The figures clearly show a single enclosure having two distinct sections, a section housing the vehicle to be painted and a “rear” section, accessed via a doorway, housing the equipment necessary for carrying out the spraying operation, this including an air handling unit.
43. The term mono-block must therefore be construed as the enclosure being a single stand-alone transportable enclosure.
44. The vehicle containing portion of the enclosure is clear from the figures and requires no further analysis. There are various references to the rear portion of the enclosure and its relationship to the air handling unit throughout the description. Page 3 line 1 states: *“the rear portion incorporates an air handling unit”*, page 6 line 16 states *“In the rear portion (5) of the enclosure an air handling unit (18) may be provided”* and page 3 lines 30-31 state *“The enclosure is triangular in plan view and its rear most side contains the air handling plant”*. Taking into account the obvious typographic error in this final statement (the figures showing an enclosure which is rectangular in plan view), it is clear that the air handling unit is located in the rear section of the enclosure.
45. Further, the description at page 8 lines 23-31 includes a handy summary of the invention with the following terms being of note *“a fully transportable workstation”, “stand alone facility”, “fully integrated air handling system”* and *“overall integrated nature”*.

46. Therefore, I consider that the person skilled in the art would construe these terms together as relating to an enclosure formed as a single standalone, fully integrated, unit that can be loaded and unloaded from some form of transportation, the fully integrated unit including an air handling unit.

...for respectively producing a first temperature level within said enclosure suitable for a spraying mode of operation and a second temperature level within said enclosure suitable for a baking mode of operation.

47. The Requester has commented that there is no restriction in the claims that the second temperature should be different from the first temperature. I agree with the Observer that the person skilled in the art would be more than aware that the temperatures suitable for the spraying and baking (curing) steps of a spray-painting process would not be the same, one being significantly higher than the other. If there was any doubt in the mind of the skilled person, the description would be referred to for confirmation. For example, page 8 lines 14-16 read:

“...it comprises its own direct gas-fired air handling unit with the spray and bake functions producing approximately 20° Celsius and 60° Celsius respectively”.

48. The person skilled in the art would construe this aspect of claim 1 as meaning the air handling unit is capable of producing two temperature levels within the enclosure, one suitable for spraying and one suitable for curing.

The dependant claims

49. Claims 2-7,10-13, 15-16 are clear and require no further analysis.
50. I will briefly comment on the construction of claims 8 and 9 in as much as they refer to the location of the air handling unit. Notwithstanding the aforementioned typographical error (triangular vs rectangular), the only portion of the description which discusses these claims is the near repetitive language used in the summary of the invention. However, it can be clearly seen in figures 1 and 2 what the language of the claims is intended to cover. The enclosure has a front side where the doors are located and a rear side where the air handling unit is located. The air handling plant extends over less than $\frac{3}{4}$ of the length of the rear side of the enclosure.
51. The Requester has gone into great detail with respect to how claim 14 should be construed and its “repercussive effect” on the interpretation of claim 1. Based on the information before them, the person skilled in the art would firstly construe claim 1. Having done so they would not then backtrack based on the wording of a dependant claim. In this case, I agree with the Observer that the person skilled in the art would not change their interpretation of claim 1 based on the almost repetitive language of claim 14. The person skilled in the art would construe claim 14 based on the information before him and in the light of previously construed claim 1. In this case, due to the almost repetitive language, they would simply conclude that claim 14 places no further restrictions on the claimed invention.
52. Claim 17 is an omnibus claim. I will address the issue of how this claim should be

construed at a later stage if the invention of claims 1-16 is shown not to be novel or inventive.

Novelty and Inventive step – the law

53. Section 1(1)(a) and (b) of the Patents Act (henceforth ‘the Act’) reads:

1(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say –

- (a) the invention is new;*
- (b) it involves an inventive step;*

54. The relevant provisions in relation to novelty are found in section 2(1) and section 2(2) which read:

2(1) An invention shall be taken to be new if it does not form part of the state of the art.

2(2) The state of the art in the case of an invention shall be taken to comprise all matter (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been made available to the public (whether in the United Kingdom or elsewhere) by written or oral description, by use or in any other way.

2(3) The state of the art in the case of an invention to which an application for a patent or a patent relates shall be taken also to comprise matter contained in an application for another patent which was published on or after the priority date of that invention, if the following conditions are satisfied, that is to say –

- (a) that matter was contained in the application for that other patent both as filed and as published; and*
- (b) the priority date of that matter is earlier than that of the invention.*

55. The provisions in relation to inventive step are found in section 3 which states:

3. An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above).

56. The Court of Appeal in *Windsurfing*³ formulated a four-step approach for assessing whether an invention is obvious to a person skilled in the art. This approach was restated and elaborated upon by the Court of Appeal in *Pozzoli*⁴. Here, Jacob LJ reformulated the *Windsurfing* approach as follows:

- (1)(a) Identify the notional “person skilled in the art”*
- (1)(b) Identify the common general knowledge of that person;*
- (2) Identify the inventive concept of the claim in question or if that cannot be*

³ *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd*, [1985] RPC 59

⁴ *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

readily done, construe it;

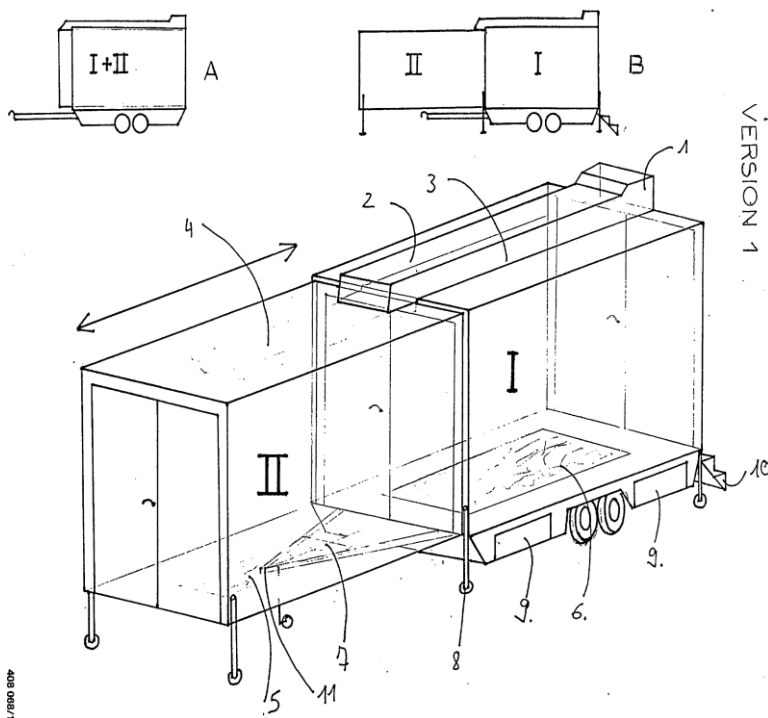
(3) Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim as construed.

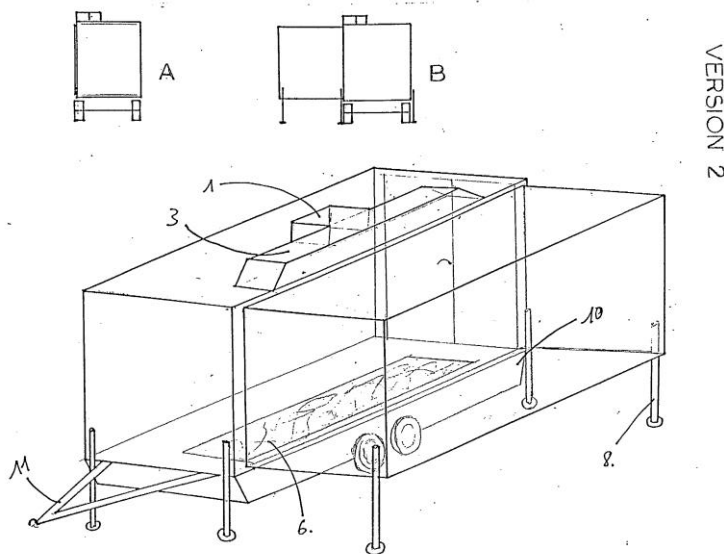
(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps that would have been obvious to the person skilled in the art or do they require any degree of invention?

57. I will begin by considering the validity of the invention as defined by claim 1. Only if I find it to be invalid will I consider the dependent claims.

The prior art: DE 4327751

58. DE 4327751 discloses a mobile spray-painting unit. The document provides minimal textual descriptive detail, so my analysis relies heavily on the figures. The unit takes the form of a towable trailer which can be extended once in situ either lengthways as illustrated in version 1 to provide spraying and drying rooms (I and II) or sideways as illustrated in version 2, to provide an “extra wide combined spray and drying room”. A heater with a fan 1 and air supply 3 are provided on top of the first unit and air appears to be exhausted via filter mats 5,6 on the floor. Storage 9 is provided for an air compressor, gas cylinders, tools and the like. The unit is provided with doors and is accessed via an extendable staircase 10.



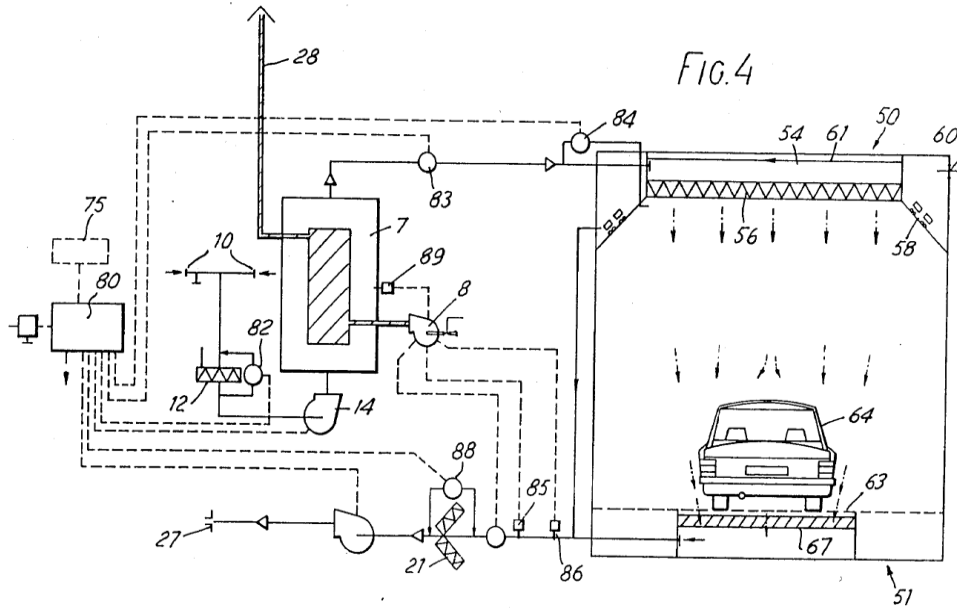


The prior art: DE202009003182

59. DE202009003182 discloses a mobile spray-painting unit suitable for spray painting cars. The document contains no drawings and minimal textual description. It would appear that the unit is designed as a trailer to be towed. The unit is provided with access doors and a ramp. A compressor, generator, air supply and exhaust and heating system are said to be installed in the front end of the trailer.

The prior art: GB2136947 and US 4685385

60. GB2136947 and US 4685385 are by the same applicant and relate to air handling units for spray painting booths. US4685385, which was filed some years after GB2136947, repeats in its entirety the contents of GB2136947. The additional subject matter present in US 4685385 relates to an additional embodiment in which the personnel doors of the booth are repositioned to impart additional strength to the structure. This additional embodiment does not appear to add anything that materially impacts the relevance of the what is disclosed in GB2136947. Consequently, my assessment of the relevance of US4685385 to the novelty of the Patent will be the same as that for GB2136947. Going forward, for ease of reference, I shall simply refer to both documents as US4685385, this being the longer of the two documents.
61. US4685385 discloses a refinishing unit for the spraying of vehicles. The refinishing unit comprises a portable, free standing, spray booth having a portable, self-contained air handling module connected thereto.



62. Column 2 lines 9-14 and 20-23 state:

“The air handling module is in the form of an apparatus pod which is self-contained and is connectable both to a spray booth....and to sources of supply including mains electricity and burner fuels such as gas or oil etc.”

“The unit centres around a heat exchanger to which air is fed and which is arranged to heat up this air by the use of an oil or gas burner associated therewith.”

63. Column 5 lines 1-10 adds:

“Since the two units are factory produced, assembly of the refinishing unit is a simple matter, the spray booth being merely unloaded onto a suitable site together with the air handling module. The air handling module is pushed up against the side of the booth and the various connections between the two units and between the exterior supplies and the air handling module, together with the compressed air supply to the booth, being made. Once the units have been tested for correct operation, the unit can be put immediately into use.”

64. It is clear throughout the specification that the spray booth and the air handling unit are separate units which are moveable independently from one another.

65. Operation of the refinishing unit consists of two stages, a spray step and a curing step. During the spraying step the air handling unit functions to remove build-up of spray mist and to supply a constant supply of fresh air to the operator within the booth. During the curing step the air handling unit functions to supply air at a much higher temperature.

Novelty: DE 4327751

66. Although DE 4327751 discloses a mobile spray-painting unit, the unit is only accessible via an extendable staircase and is therefore inaccessible to vehicles themselves. However, the way in which claim 1 has been construed includes the transportable enclosure being suitable for painting automobiles parts therein. This document therefore fulfils the requirement in claim 1 of being a transportable vehicle enclosure suitable for painting vehicles.
67. The air handling unit of DE 4327751 is within the enclosure and thus DE4327751 is also considered to disclose a mono-block suitable for loading onto a transporter and unloading from a transporter, said enclosure further comprising an air handling unit integral with said mono-block.
68. DE 4327751 states that the unit is for spraying and drying, but although the presence of the heater/fan combination implies that the air within the unit is heated there is no actual disclosure of the temperatures used i.e. whether the unit is warmed to one consistent temperature or there is the possibility for a range of temperatures to be used depending on the task in hand. There is additionally no reference to the temperature of the air being controlled or the presence of a controller within the unit. The requirement for the air handling unit to be capable of producing first and second temperatures within the enclosure is therefore not satisfied.
69. I am therefore of the opinion that claim 1 is novel with respect to DE4327751 and therefore there is no reason for me to consider the dependant claims.

Novelty: DE202009003182

70. My analysis of DE202009003182 is very similar to that of DE4327751. DE202009003182 fulfils all the requirements of claim 1 with the exception of disclosure of means to provide two separate temperatures within the enclosure.
71. I am therefore of the opinion that claim 1 is novel with respect to DE202009003182 and therefore there is no reason for me to consider the dependant claims.

Novelty: GB2136947 and US 4685385

72. In line with how claim 1 has been construed US4685385 does not disclose a mono-block suitable for loading onto a transporter and unloading from a transporter, said enclosure further comprising an air handling unit integral with said mono-block. Although the air handling unit does satisfy the requirement for providing two temperatures to the enclosure, the spray booth and the air handling unit are clearly separate entities and are referred to as such throughout the specification. Column 5 lines 60-64 discuss how the air handling apparatus can be relocated depending upon the orientation of the booth itself and lines 65-68 discuss connecting the air handling unit to other apparatus including permanent booths.

“As will be appreciated, because the unit is provided with doors at both ends, the possible orientation of the booth can be such as to allow the apparatus

pod to be mounted effectively on either side of the booth without the necessity of providing two sets of input connections. The air handling pod may be used separately to the booth so as to provide desired air flow and temperatures to other apparatus and may be used in connection with a permanent booth provided in a building if desired.”

73. The air handling unit is not integral with the spray booth and can be moved independently therefrom and therefore this document can not dispute the novelty of the invention defined by claim 1.
74. I am therefore of the opinion that claim 1 is novel with respect to US4685385 and consequently GB2136947 and therefore there is no reason for me to consider the dependant claims.

Inventive step

75. The person skilled in the art has been previously defined as a designer or engineer of transportable vehicle enclosures which may be suitable for painting vehicles. The common general knowledge of that person would include the physical construction of the units themselves and the different ancillary equipment required e.g. air handling units, heaters etc and how these co-operate with each other. They would be well versed on the ways and means to relocate such units, including appropriate transportation and loading onto such transportation. Although not a paint specialist, they would be abreast of common spray-painting techniques and the properties of the paints that are generally used in the field. This would include an awareness of the appropriate environmental conditions for spray painting e.g. to account for clogged nozzles at low temperatures and that some paints require a curing step.
76. The Requester has highlighted a number of documents (E-L) which they considered to show features that fall within the common general knowledge of the person skilled in the art. A number of these documents show how the use of different temperatures for spraying and baking is well known, whilst others show features of the dependant claims.
77. There is much debate between the Requester and Observer with respect to the different temperature requirements for spraying and baking. I have carefully considered all the comments, but I am of the view that it is unnecessary to get into a convoluted discussion on this matter. The required temperatures must be understood to be within the bounds of how claim 1 has been construed. In this case, as previously discussed under the section on claim construction, the person skilled in the art would construe this aspect of claim 1 as meaning the air handling unit is capable of producing two temperature levels within the enclosure, one suitable for spraying and one suitable for baking (curing), one being significantly higher than the other.
78. The only other matter that I think is worthy of consideration is whether the person skilled in the art would consider the terms drying and baking (curing) to be interchangeable. It is my understanding that “curing” is a two-step process; A “drying” step wherein solvents and the like contained with the paint evaporate and a “hardening” step wherein a solid adherent coating is produced, the process as a

whole being accelerated by the application of heat/hot air.

79. It would appear that drying is a short-term aim and is considered a step within the more longer curing (baking) process and so these terms are not interchangeable.

Inventive step: DE 4327751 and common general knowledge

80. The inventive concept of claim 1 is a single standalone transportable unit suitable for painting vehicles or parts thereof having an integral air handling system which is capable of producing two temperatures within the enclosure, one suitable for spraying and one suitable for curing.
81. DE 4327751 is stated to be a mobile unit having a spraying and drying room (separate or combined). It is clear that DE 4327751 is provided with a heater and fan for movement of the heated air, there is however no mention of heating per se within the document. The unit has a drying room but there is no mention of curing. It is further unclear from the information presented in DE 4327751 whether the heated air is distributed to both cabins in Version 1 or evenly across the combined room in Version 2, a factor which would be central to the curing process.
82. The difference between the inventive concept and DE 4327751 is that the unit must be capable of producing two temperatures within the enclosure, one suitable for spraying and one suitable for curing.
83. The provision of such a unit in DE 4327751 would not be a simple adaptation. The heater/fan combination would have to be replaced with a more complex unit capable of producing and controlling the required temperatures. Consideration of the size, weight and location of such a unit would need to be considered. In my opinion the person skilled in the art would be more likely to employ a standalone IR heater such as that disclosed in EP1874095 to aid the curing process rather than go to the complex and most probably costly process of modifying or replacing the existing air handling unit of DE 4327751.
84. I am therefore of the opinion that claim 1 is inventive with respect to DE 4327751 in combination with common general knowledge and therefore there is no reason for me to consider the dependant claims.

Inventive step: DE202009003182 and common general knowledge

85. My analysis of DE202009003182 is very similar to that of DE4327751, perhaps stronger as there is simply not enough information presented in DE202009003182 to form a persuasive argument.
86. I am therefore of the opinion that claim 1 is inventive with respect to DE202009003182 in combination with common general knowledge and therefore there is no reason for me to consider the dependant claims.

Inventive step: US4685385 and common general knowledge

87. The difference between the inventive concept and US4685385 is that the air handling unit is integral with the spray booth and the unit is therefore transportable as a single unit.

88. The Requester has discussed how this is an obvious modification particularly since over the time that has elapsed between the prior art and the invention, air handling units having become smaller, lighter and easier to integrate. The Observer disputes this and I am minded to agree. It is not simply a case of saying such units could now potentially be more easily integrated into the spray booth. There has to be something that would motivate the person skilled in the art to do this and this motivation has to be apparent without knowledge of the invention.
89. US4685385 discloses an air handling unit which can be used independently of the booth to which it may be attached. It is not a simple apparatus. It is a combination of a heater generator, heat exchanger and two fans housed in a steel framework. The air handling unit is described as being an "individual piece of apparatus" which can be relocated and used independently. Although integrating the air handling unit within the booth would make the apparatus more easily transportable this would be to the detriment of its flexibility of use. If over time, as the Requester has suggested, such units have become smaller and easier to move, this would make the use of such standalone units even more flexible. Integrating the unit into the spray booth, with the adaptations it would require, would remove this flexibility. There would be no motivation to do this.
90. I therefore of the opinion that the invention as defined by claim 1 is inventive with respect to US4685385 in combination with common general knowledge and consequently there is no need for me to consider the independent claims.

Inventive step: DE 4327751 or DE202009003182 in combination with US4685385 and vice versa

91. As previously discussed DE4327751 and DE202009003182 show mobile spray paint units with air heaters but to not disclose the capacity for producing two temperatures within the enclosure, one suitable for spraying and one suitable for curing. US4685385 discloses a mobile spray paint unit with a supplementary standalone air handling unit which is capable of producing two temperatures within the spray enclosure.
92. Two questions therefore need to be asked; Firstly, based on the disclosures of DE 4327751 or DE202009003182 would it be obvious to form US4685385 as a single standalone unit and secondly, based on the disclosure of US4685385, would it be obvious to provide the units of DE 4327751 or DE202009003182 with an air handling unit capable of producing two temperatures within the spray enclosure?
93. Although DE 4327751 or DE202009003182 both show standalone spray units, based on the information available the air handling units they incorporate are very basic. In contrast, the air handling unit of US4685385 is a large complex unit encased within a heavy steel framework. Whilst it is true that DE 4327751 or DE202009003182 suggest that integral units are known, as previously discussed, the person skilled in the art would have little motivation to modify US4685385 in such a way. It would not be a simple case of placing the air handling unit within the vehicle enclosure, major structural considerations would have to be taken into account in addition accounting for the loss of space within the spray enclosure. This would not be an obvious modification.

94. As stated there is little information available with respect to the air handling units of DE 4327751 or DE202009003182 and it is therefore assumed that they are relatively simple units. Taking DE4327751 as an example, the air handling unit is located on the roof. This would need to be stabilised to incorporate a more complex air handling unit capable of providing two temperatures or the air handling unit would need to be moved to an alternative location which would impact on the size and usability of unit. What would be the motivation to change this relatively simple unit to a comparatively more complex one with enhanced temperature control facilities? In my opinion, it is more likely that the person skilled in the art would adopt the use of a standalone IR heater such as that disclosed in EP1874095 than undertake such major structural modifications of the unit.
95. I am therefore of the opinion that claim 1 is inventive with respect to DE 4327751 or DE202009003182 in combination with US4685385 and vice versa and therefore there is no reason for me to consider the dependant claims.

Inventive step: US4685385 and US5853215

96. As previously stated I will now consider US4685385 in the light of US5853215 which is a document that was considered previously during substantive examination of the Patent and which is listed on page 1 of the description as prior art.
97. US5853215 discloses a mobile spray-booth in the form of a towable trailer. The trailer (10) is equipped with an air handling unit (50) designed to ventilate the unit and infrared curing lights (64) to cure the paint on the automobile being spray-painted.

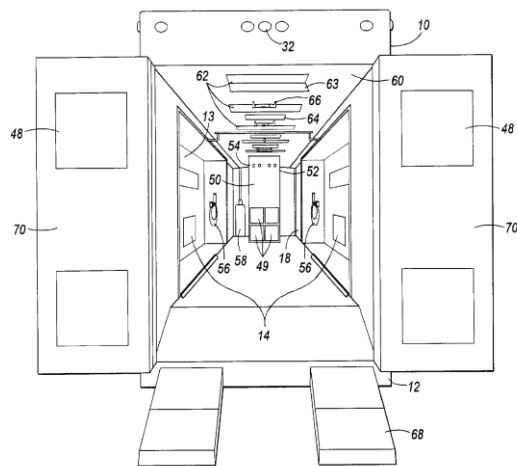


FIG. 5

98. The air handling unit is integral with the spray booth and the trailer can be towed as a single piece onto the deck of a ship (a transporter) so therefore satisfies the requirement of being a single transportable unit. The air handling unit does not however alter the temperature of the air entering the unit and the heat required for curing is provided by the infrared lights located on the ceiling and walls of the booth.
99. This document therefore shows that it is known for air handling unit, in fact all the ancillary equipment required for spray-painting, to be provided with the spray booth

and that the unit can be transported as a single entity. It differs from the inventive concept of claim 1 in that the air handling unit is not capable of producing two temperature levels within the enclosure, one suitable for spraying and one suitable for curing. This however is known from US4685385.

100. What would be the motivation for the person skilled in the art to replace the air handling unit of US5853215 with one that was capable of altering the temperature within the booth such as that disclosed in US4685385? Although an increase in temperature is required for the curing process to occur, the apparatus of US5853215 already has means for facilitating this, namely infrared lights. Further, it would not simply be a case of replacing the air handling unit with another capable of temperature generation and control. The workstation of US5853215 is a fully integrated unit which would require extensive alterations to include the new air handling unit e.g. space would need to be created to include a heat exchanger, exhaust mechanism and fuel storage, not to mention the additional safety considerations that would be required for transporting flammable fuels. Also, taking into account that air handling units which included a heat exchanger were already known at the time this fully integrated unit was invented, would the person skilled in the art not consider this to be a step backwards? It is my opinion that they would, and they would have no motivation to make this adaptation.
101. I therefore of the opinion that the invention as defined by claim 1 is inventive with respect to US4685385 in combination with US5853215 and consequently there is no need for me to consider the dependant claims.

Infringement

102. Section 60 of the Act governs what constitutes infringement of a patent:

(1) Subject to the provisions of this section, a person infringes a patent for an invention if, but only if, while the patent is in force he does any of the following things in the United Kingdom in relation to the invention without the consent of the proprietor of the patent, that is to say-

(a) Where the invention is a product, he makes, disposes of, offers to dispose of, uses o

(b) r imports the product or keeps it whether for disposal or otherwise;...

(c) ...

(c) ...

(2) Subject to the following provisions of this section, a person (other than the proprietor of the patent) also infringes a patent for an invention if, while the patent is in force and without the consent of the proprietor, he supplies or offers to supply in the United Kingdom a person other than a licensee or other person entitled to work the invention with any of the means, relating to an essential element of the invention, for putting the invention into effect when he knows, or it is obvious to a reasonable person in the circumstances, that those means are suitable for putting,

and are intended to put, the invention into effect in the United Kingdom.

103. In the Supreme Court in *Actavis v Eli Lilly*¹, Lord Neuberger stated that the problem of infringement is best approached by addressing two issues, each of which is to be considered through the eyes of the notional addressee of the patent in suit, i.e. the person skilled in the relevant art. Those issues are:

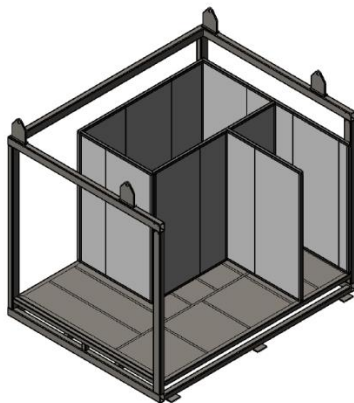
- (i) *does the variant infringe any of the claims as a matter of normal interpretation; and, if not,*
- (ii) *does the variant nonetheless infringe because it varies from the invention in a way or ways which is or are immaterial?*

104. If the answer is “yes”, there is infringement; otherwise there is not.

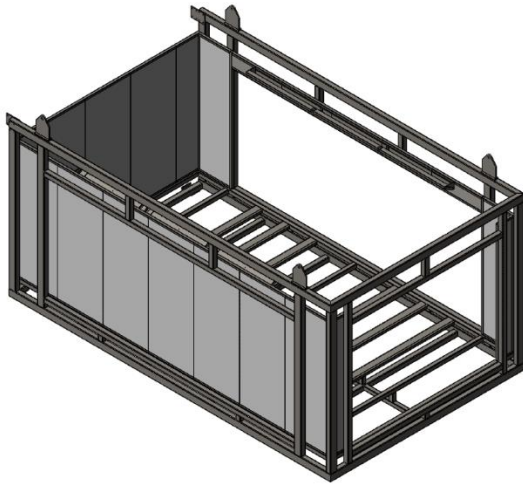
The potentially infringing product

105. The potentially infringing product, known as the Firber spray booth, is a transportable vehicle enclosure with an air handling unit capable of producing first and second temperatures. Taking into account how claim 1 has been construed, infringement of the Patent appears to rest solely on whether the Firber spray booth can be considered an enclosure formed as a single standalone, fully integrated, unit that can be loaded and unloaded from some form of transportation, the fully integrated unit including an air handling unit.

106. The requester has provided engineering drawings with file name “new paint aseembly” of the booth which have been reproduced below.

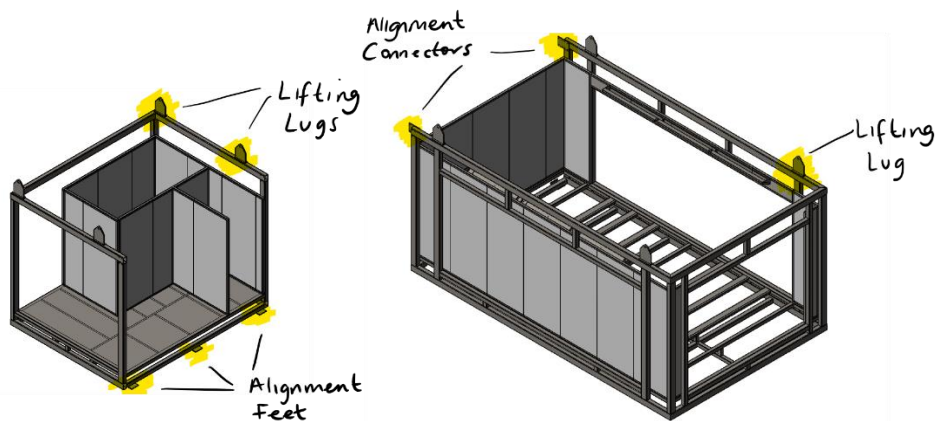


OL10: The frame which comprises the air handling unit



OL11: The vehicle enclosure

107. The request states that the booth is specifically designed to be transported in two sections, one comprising an air handling unit and one comprising a vehicle enclosure. The air handling unit is said to fulfil the requirements of claim 1 of the Patent. Alignment connectors provided between the units are coupled in use to allow proper alignment of the two units but, on application of any sort of force for moving the units, these would quickly tear away or otherwise become loose. No drawings of the constructed product have been provided and there is no indication in the original request as to which walls are missing through design and which for ease of view.
108. It would appear that the booth has alignment feet and connectors and has lifting lugs. In the absence of any evidence to the contrary I have assumed these to be as detailed below:



109. It is stated that the sections are lifted individually and separately by the lifting lugs, that the alignment feet are thin metal protrusions which are able to lightly cup a portion of the frame of the vehicle enclosure and that the alignment connectors are thin plates which align the upper frame portions of the air handling unit. It is further

stated that the alignment connectors are coupled with a number (4 being suggested) of 6mm pins.

110. Whilst welcoming the Requesters attempt to construct a product which avoids the claimed invention, the Observer has expressed concern that the drawings and information supplied in the request are ambiguous and may not be truly representative of the manufactured product.
111. How accurate a representation of the actual finished product the engineering drawings and description are is beyond my remit in this opinion and consequently the following analysis and conclusion relate solely to the likelihood of the booth shown in the drawing and minimally described infringing the Patent and not the likelihood of the actual manufactured product infringing the Patent.

Does the alleged infringing product infringe the Patent as a matter of normal interpretation?

112. The Observer has queried whether each individual unit is provided with four walls. They have stated that in their opinion if two fully walled units are merely pushed up against one another there can be no infringement of the Patent, but they question whether the absence of walls indicates an intention to construct a single unit.
113. In their observations in reply the Requester has provided clarification that the vehicle enclosure does have a wall at the point of connection between the units, but the air handling unit does not. They have confirmed that the air handling unit is sealed until the time of connection at which point the seal is removed as it is no longer required as the unit is sealed by the end wall of the vehicle enclosure.
114. On balance, I don't think the presence or absence of this wall materially matters. Once the units are pushed up against each other they will give the impression that they are a single unit regardless of whether the extra wall is there or not. What appears to be the major point of contention is whether the manner in which the units are connected would allow them to be transported as a single unit.
115. Both the Requester and Observer have provided figures showing how the two sections could and could not be lifted as single unit. There are two different points of "connection", the alignment feet and the alignment connectors. As the unit would have to be lifted from above the alignment feet as described would not in my mind provide any meaningful form of connection between the two units. This therefore leaves us with only the alignment connectors. If, as the Requester has described, the alignment connectors between the two sections are secured using 6mm pins, there is no feasible way the two units could be lifted as a single unit. The "connected" sections would not be structurally sound enough to be lifted as single piece.
116. Therefore, I am of the opinion that as a matter of normal interpretation the product can not be considered to infringe claim 1 of the Patent and therefore there is no need for me to consider the dependant claims.

Does the alleged infringing process infringe the Patent due to immaterial variation?

117. The Requester has not provided any argument on possible infringement under the second immaterial variation test of *Actavis v Eli Lilly*. I will however briefly consider it given that it is now part of the assessment of infringement. The reformulated “improver questions” that are relevant to this test are:

i) Notwithstanding that it is not within the literal meaning of the relevant claim(s) of the patent, does the variant achieve substantially the same result in substantially the same way as the invention, ie the inventive concept revealed by the patent?

ii) Would it be obvious to the person skilled in the art, reading the patent at the priority date, but knowing that the variant achieves substantially the same result as the invention, that it does so in substantially the same way as the invention?

iii) Would such a reader of the patent have concluded that the patentee nonetheless intended that strict compliance with the literal meaning of the relevant claim(s) of the patent was an essential requirement of the invention?

118. To establish infringement, where there is no infringement under normal construction, the answer to question i) and ii) must be yes and the answer to question iii) must be no.

119. As previously discussed, infringement of the Patent appears to rest solely on whether the Firber spray booth can be considered an enclosure formed as a single standalone, fully integrated, unit that can be loaded and unloaded from some form of transportation, the fully integrated unit including an air handling unit. As a matter of normal interpretation, the booth cannot be considered a single standalone unit as the units are transported separately before being placed in alignment on site. Once aligned, movement as a single unit would be inhibited by the 6mm alignment connectors not providing sufficient structural integrity.

120. The first question that needs to be asked is therefore does moving the two sections individually and aligning them on site achieve substantially the same result in substantially the same way as the invention? The answer to this has to be no. The whole premise of the invention is a single transportable unit that requires minimal intervention. Individual transportation of the two sections and construction of the finished unit on site would be contrary to the whole teaching of the Patent.

121. As the answer to the first question is no there is no need for me to consider the other questions.

122. I am therefore of the opinion that claim 1 of the Patent is not infringed due to immaterial variation and therefore there is no need for me to consider the dependant claims.

Indirect infringement

123. The Observer has expressed concern that undertaking to permanently attach the air handling unit and the vehicle enclosure together after the point of sale would result in a product which would indirectly infringe the patent under Section 60(2) and that it should be made clear in sales literature and the like that this is not allowable.
124. Although I have not been furnished with enough information to form a complete opinion on indirect infringement, I am minded to agree that such clarification would be required.

Opinion

125. It is my opinion that claim 1 of the Patent is novel in light of DE4327751, DE202009003182, GB2136947 and US4685385.
126. I am also of the opinion that claim 1 of the Patent is inventive in light of what is disclosed in DE4327751, DE202009003182, GB2136947 and US4685385.
127. I am of the opinion, that based on the information provided, the product shown in the engineering drawings does not directly infringe the Patent.
128. I am unable to reach an opinion of indirect infringement of the Patent based on the information provided.

Application for review

129. Under section 74B and rule 98, the proprietor may, within three months of the date of issue of this opinion, apply to the comptroller for a review of the opinion.

Nicola Payne
Examiner

NOTE

This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.